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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,098	04/11/2001	Reinhold Berberich	4675 US	8881

7590 05/17/2004
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EXAMINER

LEJA, RONALD W

ART UNIT PAPER NUMBER

2836

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/833,098

Applicant(s)

BERBERICH, REINHOLD

Examiner

Ronald W Leja

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-31 is/are allowed.
- 6) ☒ Claim(s) 25, 27, 28, 32-35, 42 and 43 is/are rejected.
- 7) ☒ Claim(s) 26 and 36-41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/13/01</u> . | 6) <input type="checkbox"/> Other: _____ |

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The instant application file wrapper is now in electronic form at the Patent Office and the IDS of 8/13/01 is not reflected as being considered with the exception of indication on the Office Action Summary of 10/6/03. Thus, an initialed copy of the IDS is attached with this Office Action in an effort to complete the file.

Full faith and credit has been given to the previous Examiner's work, however, the following rejections are considered proper.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25, 27, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasse et al. (DE 32 26 569 A1) in view of Krantz (4,431,251).

Hasse et al. disclose an overvoltage protection device incorporated into a plug-in device having at least one plug-in element (see Fig. 8). The device (Fig. 5) has a protection board (32) having a spark gap formed with an electrically conductive structure (28) and each plug-in element (35,39,42). The electrically conductive structure has a form of a track which is free from solder resist and arranged in a vicinity of an opening

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accommodating a plug-in element (see also Fig.s 1 & 2), wherein (4) corresponds to (28) of Fig. 5 and (8) corresponds to (35,39,42). In Fig. 5, the conductive structure (28) forms a recess in the board (32) in a vicinity of plug pin (35,39,42) for Claims 27 & 28. Hasse et al. disclose assembly plate (58) in Fig. 8, but are otherwise silent with respect to having the plug-in device mountable on the housing of an electronic apparatus. Krantz teaches a protection device having a plug-in device (70) with a protection board (110) and being mounted on the housing of an electronic apparatus (see Col. 3, lines 19-23). It would have been obvious to apply the teachings of Krantz, namely, having the plug-in protection devices being mounted directly to the housings of the electronic apparatus requiring the protection, and thus, ensure that any transients, noise and/or overages that may get on connected lines thereto would be taken care of before passing signals and/or power into the electronic apparatus, thereby resulting in less damages. Krantz also does not discuss the use of solder resist with conductive track (114) in a vicinity of an opening accommodating a plug-in element (74). Hasse et al. are silent with respect to use of a suppression device to improve electromagnetic sensitivity of the electronic apparatus as required by Claim 32. Krantz teaches the use of devices to absorb electromagnetic pulses (see Abstract) as well that such electromagnetic suppression devices can be used in conjunction with spark gaps (Col. 7, lines 23-30). It would have been obvious to apply the teachings of utilizing electromagnetic

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suppression along with spark gaps as a means to ground out current surges to protect the attached electronic apparatus until the spark gap device fires.

Claims 33-35, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasse et al. in view of Krantz as applied to Claim 32 above, and further in view of Ward (5,599,208).

Claim 33 is drawn to the use of a varistor for the suppression device and Claims 34, 35, 42 and 43 are drawn to the use of a capacitor for the suppression device. Hasse et al. disclose spark gap protection and Krantz teaches spark gap protection along with suppression devices, but neither suggest the use of a varistor or capacitor. Ward teaches the use of a protection device incorporated within a plug-in device having a plug-in element wherein capacitors and/or varistors can be utilized (see Col. 1, lines 7-26 and Col. 9, lines 33-35). It would have been obvious to offer varistor protection (for Claim 33) as varistors are known for their instantaneous response to high voltages, with good temperature stability and excellent clamping characteristics. Such would complement spark gap protection. The added use of capacitors would have been obvious as a means to offer filtering abilities to the protection plug-in device, thereby offering cleaner signal lines for attached electronic apparatus requiring clean signal lines.

Claims 26 and 36-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

Claims 29-31 are allowed.

The following is a Statement of Reasons for the Indication of Allowable Subject Matter: The claimed combinations of Claims 26, 36 and 37, which include specifics of solder resist and solder land and the specific configurations for the plates of the capacitor are not obvious in view of the Prior Art of Record. Claims 29-31 are allowable over the Prior Art of Record as the Prior Art does not disclose nor suggest the claimed combinations, including the spark gap formed at the board edge by at least two conductive tracks.

*** A copy of a translation of Hasse et al. (DE 32 26 569 A1) is included in this Office Action. ***

The newly cited References, which have not been relied upon, have been cited as a matter of interest.

Applicant's comments of 1/20/04 have been fully considered, but are moot in view of the new rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W Leja whose telephone number is (571)272-2053. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800. The fax phone number for the

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organization where this application or proceeding is assigned is
703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald W Leja
Ronald W Leja
Primary Examiner
Art Unit 2836

5/17/04

rwl
May 12, 2004